AUTHORS: Jan Fousek, Bohuslav Březina CZECH/37-59-2-17/20

TITLE: Letter to the Editor: The Irreversible Motions of a 90° Domain in $BaTiO_3$

PERIODICAL: Československý Časopis Pro Fysiku, 1959, Nr 2, pp 217-218

ABSTRACT: The motion of a 90° domain of type c , in the shape of a triangular prism of a monocrystal of $BaTiO_3$, was observed in an ac electric field (50 c/s) perpendicular to the c axis of the domain (Fig 1a). Up to amplitudes of 1.1 kV/cm, the motion of the wall could not be measured, i.e. it was $< 0.35\ \mu$. With increasing amplitudes of the electric field, the domain began to move and its motion increased until it reached 4.1 μ at 6.49 kV/cm. A similar result has been obtained by Little (Ref 1) in a 90° domain of a different type. The motion was studied in more detail with stroboscopic illumination. It was found that the dependence of the displacement of the domain on the momentary intensity of the electric field, followed the hysteresis curve. The vibrational motions of the walls have, therefore, an irreversible character. At higher fields, saturation

Card 1/2

Letter to the Editor: The Irreversible Motions of a 90° Domain in $BaTiO_3$

occurs when the motion of the wall stops before the field reaches its maximum amplitude (Fig 1b). Some factors to be considered in the interpretation of this phenomenon are listed. The motion of the domains was in phase with current. The above results show that the motion of the 90° domain walls contributed to the typical hysteresis of the total polarisation of $BaTiO_3$ crystals.

Card 2/2

There are 1 figure and 1 English reference.

ASSOCIATION: Fysikálni ustav ČSAV, Praha
(Department of Physics, Ac. Sc. Prague)

SUBMITTED: November 4, 1958

Irreversible motion of a 90° domain in barium titanate. Jan Fousek and Bohuslav Březina (Czechoslov. Acad. Sci., Prague). *Czechoslov. J. Phys.* 9, 209-6(1959)(in English).—The oscillating motions of the boundaries have an irreversible character; similar results have been obtained previously with 90° domains of a different type by Little (*C.A.* 49, 11407b). An attempt is made to interpret the irreversible boundary motions. It follows that the displacements of 90° domain boundaries contribute to the creation of a typical hysteresis dependence of the total polarization of a $BaTiO_3$ crystal on the voltage. A. Kremheller

COUNTRY : Czechoslovakia B-9
CATEGORY :

ABS. JOUR. : RZKhim., No. 23 1959, No. 81414

AUTHOR : Brezina, B.
INST. : Not given
TITLE : A Study of the Reaction Between Equimolar Mixtures of Barium Carbonate and Different Varieties of Titanium Dioxides.
ORIG. PUB. : Collect. Czechosl. Chem. Communs, 1959, 24, #4, 1206-1233.
ABSTRACT : See RZKhim, 1958, #11, 35468.

CARD: 1/1

CZECH/37-59-2-17/20

AUTHORS: Jan Fousek, Bohuslav Březina

TITLE: Letter to the Editor: The Irreversible Motions of a 90° Domain in $BaTiO_3$

PERIODICAL: Československý Časopis Pro Fysiku, 1959, Nr 2, pp 217-218

ABSTRACT: The motion of a 90° domain of type c, in the shape of a triangular prism of a monocrystal of $BaTiO_3$, was observed in an ac electric field (50 c/s) perpendicular to the c axis of the domain (Fig 1a). Up to amplitudes of 1.1 kV/cm, the motion of the wall could not be measured, i.e. it was $< 0.35\ \mu$. With increasing amplitudes of the electric field, the domain began to move and its motion increased until it reached 4.1 μ at 6.49 kV/cm. A similar result has been obtained by Little (Ref. 1) in a 90° domain of a different type. The motion was studied in more detail with stroboscopic illumination. It was found that the dependence of the displacement of the domain on the momentary intensity of the electric field, followed the hysteresis curve. The vibrational motions of the walls have, therefore, an irreversible character. At higher fields, saturation

Card 1/2

CZECH/37-59-2-17/20

Letter to the Editor: The Irreversible Motions of a 90° Domain in $BaTiO_3$

occurs when the motion of the wall stops before the field reaches its maximum amplitude (Fig 1b). Some factors to be considered in the interpretation of this phenomenon are listed. The motion of the domains was in phase with current. The above results show that the motion of the 90° domain walls contributed to the typical hysteresis of the total polarisation of $BaTiO_3$ crystals.

Card 2/2

There are 1 figure and 1 English reference.

ASSOCIATION: Fysikální ustav ČSAV, Praha
(Department of Physics, Ac. Sc. Prague)

SUBMITTED: November 4, 1958

Z/037/60/000/01/008/014
E073/E535

AUTHORS: Janovec, Václav; Březina, Bohuslav; Arend, Hanuš T.

TITLE: The Physical Properties and Preparation of Ferroelectric Triglycinsulphate

PERIODICAL: Československý časopis pro fysiku, 1960, Nr 1, pp 63-80 + 92b and c (2 plates)

ABSTRACT: In the introduction it is pointed out that many authors believe that triglycinsulphate and its isomorphous compounds, namely, triglycinselenate and triglycin-fluoroberylate, have great potentialities as ferroelectric materials. A number of papers have been published on the study of the physical properties and on questions of preparation of single crystals of these substances. In this paper the authors attempt to summarize this published information; they restrict themselves to setting out established facts since knowledge available so far does not allow unequivocal interpretation of the results. The subject matter is discussed under the following paragraph headings: preparation of the compounds;

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Z/037/60/000/01/008/014
E073/E535

The Physical Properties and Preparation of Ferroelectric Triglycinsulphate

crystallographic properties; domain structures; dielectric properties (dielectric hysteresis and the process of repolarization; permittivity; piezo-electric properties); properties of triglycinsulphate in the region of transformation from the ferroelectric to the non-ferroelectric state; possibilities of application, the main one being for memory elements of computers. There are 15 figures, 2 tables and 34 references, 8 of which are Soviet, 2 Swiss, 2 French and 22 English.

ASSOCIATION: Fysikální ústav ČSAV, Praha (Physics Institute, Czechoslovak Academy of Sciences, Prague)

SUBMITTED: July 30, 1959

Card 2/2

23665

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Z/012/61/000/003/001/004
E024/E435

AUTHORS: Březina, B. and Janovec, V.

TITLE: Electrolytic colouring and degradation of monocrystals of $BaTiO_3$

PERIODICAL: Silikáty, 1961, No.3, pp.189-202

TEXT: The ceramic titanates used as dielectrics in miniature condensers become degraded with prolonged application of d.c. electric fields, i.e. their resistivity decreases. Various doping impurities have been used to reduce the tendency to degradation, but a full answer to the problem has not yet been found. The authors studied monocrystals because the problem there is simpler than in ceramics and it is possible to study optical and electrical changes in the crystal simultaneously. The process of degradation takes thousands of hours at room temperature but at higher temperatures it is considerably accelerated. Published work dealing with degradation of single crystals of barium titanate and titanate ceramics is mentioned. The crystals were grown in the shape of small platelets with an area of several tenths mm^2 and a thickness of several

Card 1/5

hundredths mm. Two small faces were provided with silver electrodes and the crystal was placed on the hot stage of a microscope. While fresh crystals show a slight yellow colour, the application of an electric field of the order of 100V/cm at 250°C leads to yellow-brown colouring within a few minutes, starting at the positive electrode. In the absence of the field, the colour gradually fades throughout the crystal. If the electric field is reversed after coloration, the colour gradually disappears, starting from the new anode. If the field of the new polarity remains on the crystal for more than about 15 minutes, the brown colour starts reappearing at the new anode. The absorption spectra of the coloured crystals show a main peak round approx. 0.5 μ. The conductivity was measured simultaneously and it was found that, together with the coloration, the conductivity of the crystals increased. A steep increase of conductivity occurs during the non-homogeneous brown coloration of the crystal, while during the homogeneous coloration, i.e. the later stage of coloration, the conductivity increases less steeply. At high intensities of the electric field (several kV/cm), the crystal breaks down after an initial gradual increase in conductivity.

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Z/012/61/000/003/001/004
E024/E435

Electrolytic colouring ...

A sudden decrease in the intensity of the electric field leads to bleaching of the crystal and a decrease in conductivity. The electrical conductivity of a coloured crystal is non-ohmic. While the temperature-dependence of the conductivity of the colourless crystal obeys a logarithmic law, the temperature-dependence of the conductivity of a coloured crystal is somewhat irregular. No photoconductivity has been observed. The coloration slightly increases the permittivity and considerably increases the loss-factor δ. The authors considered the crystals of barium titanate as ionic crystals containing Schottky defects. Several colour centres, analogous to F-centres in alkali halides, can be formed and the authors call them f-centres. Similarly, v-centres can be formed. A crystal containing f-centres has a surplus of cations while a crystal with v-centres contains a surplus of anions. f-centres can be produced in barium titanate by heating the crystals at low oxygen pressures (Ref.15: Coufová, P., Arend, H., bude publikováno v Czech. J.Phys. 1961); presumably oxygen evaporates from the crystal and thus a surplus of cations is formed. Several mechanisms are discussed

Card 3/5

Electrolytic colouring ...

by the authors whereby colour centres can be formed by the passage of current through the crystal. They consider that the silver electrodes behave as passive cathodes and active anodes. This means that metallic atoms are deposited on the cathodes but no f-centres are formed in the cathode region because equilibrium is restored by the migration of anion vacancies to the cathode. However, cation vacancies move towards the anode and simultaneously, electrons leave the crystal at the anode. Thus, v-centres are formed in the anode region. These centres then move under the influence of the field and contribute to the electrical conductivity. The gradual fading of the colour after switching off the electric field can be explained by diffusion of the colour centres to the surfaces, where oxygen can escape.
Acknowledgments are made to Candidates of Mathematical and Physical Sciences J.Fousek and K.Pátek, industrial physicist P.Coufa and Doctor H.Arend. There are 12 figures and 17 references: 10 Soviet-bloc and 7 non-Soviet-bloc. The four references to English language publications read as follows: Mott, N.F., Gurney, R.W.: Oxford University Press, 1957; Seitz, F.: Rev.Mod.

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Z/012/61/000/003/001/004
E024/E435

Electrolytic colouring ...

Phys. 18, 384 (1946); Seitz, F.: Rev.Mod.Phys. 26, 7 (1954); Saburi, O.: Journ. Phys.Soc.Jap.14,9 (1959).

ASSOCIATION: Fysikální ústav ČSAV, Praha
(Institute of Physics ČSAV, Prague)

SUBMITTED: December 29, 1960

Card 5/5

Z/013/62/000/004/004/006
D006/D102

24.7800

AUTHORS: Březina, Bohuslav, Engineer, Candidate of Sciences, and Fousek, Jan, Graduate Physicist, Candidate of Sciences

TITLE: The domain structure of ferroelectric barium titanate and its influence on the dielectric properties of the latter

PERIODICAL: Sklář a keramik, no. 4, 1962, 141-144

TEXT: Causes of the domain-structure formation in ferroelectric materials and the factors modifying the configuration of the domain structure are described in a simplified way. The main cause of domain-structure formation is the reduction of the system's free energy. It was found that the domain-structure formation in ceramic ferroelectric materials is governed by the same laws as in single crystals. The influence of domain structure on the dielectric characteristics of the $BaTiO_3$ system, especially the mechanism of repolarization of ferroelectrics by the domain shift, are dealt with in detail, indicating the possibilities of producing ferroelectric materials with built-in properties for application in variable capacitors, electromechanical transducers, computer engineering, and

B

The domain structure of ... Z/013/62/000/004/004/006
D006/D102

automation. There are 12 figures.

ASSOCIATION: Fyzikální ústav ČSAV (Physical Institute, Czechoslovak AS), Prague

Card 2/2

S/181/62/004/006/002/051
B108/B104

AUTHORS: Brezina, B., and Fousek, Ja.

TITLE: Interaction between 90-degree and 180-degree domains in $BaTiO_3$

PERIODICAL: Fizika tverdogo tela, v. 4, no. 6, 1962, 1400-1411

TEXT: The principal types of interaction between 90-degree and 180-degree domains during their motion in crystal or ceramic $BaTiO_3$ specimens are discussed. These are: Effect of 90-degree walls on the 180-degree processes of repolarization, effect of 90-degree repolarization on 180-degree repolarization, effect of 180-degree walls on 90-degree repolarization, effect of 180-degree repolarization on 90-degree repolarization. Though all these types occur simultaneously, such a subdivision is useful in handling experimental material. The effect of these interactions on the measured values of the electrical characteristics of ferroelectrics is examined. The authors' own experimental data are evaluated and classified as above. Moreover, some possible types of interaction which

Interaction between 90-degree ...

so far have not been observed are discussed. There are 14 figures.

ASSOCIATION: Fizicheskiy institut Chekhoslovatskoy AN Praga (Physics Institute of the Czechoslovakian AS Prague)

SUBMITTED: November 27, 1961

Card 2/2

VALCHA, Jiri; BREZINA, Bretislav

Use of bohemian magnetites for preparation of ammonia synthesis catalysts. Part 1: Magnetite refining by magnetic air classification. Chem prum 12 no.9:486-489 S '62.

1. Vyzkumny ustav organickych syntez, Pardubice - Rybitvi.

BREZINA, B.; FOTCENKOV, A.A.

The influence of a surface layer on the 180° switching of $BaTiO_3$ single crystals. Chekhosl fiz zhurnal 14 no.1:21-25 '64.

1. Institute of Physics, Czechoslovak Academy of Sciences, Praha 8, Lumumbova 8 (for Brezina).
2. Institute of Physics, Academy of Sciences U.S.S.R., Krasnoyarsk (for Fotcenkov).

ACCESSION NR: AP4035378 Z/0055/64/014/001/0044/0047

AUTHOR: Brezina, B.; Janovec, V.

TITLE: Interpretation of electric field strength in barium titanate single crystals

SOURCE: Chekhoslovatskiy fizicheskiy zhurnal, v. 14, no. 1, 1964, 44-47

TOPIC TAGS: permittivity, dielectric constant, electrostatic energy, electrostatic field, dielectric, coercivity, ferroelectric material, barium titanate, barium titanate single crystal, electric field strength, solid state physics, crystallography

ABSTRACT: Authors show that the electric field strength of unetched and successively etched barium titanate crystals can be explained by the presence of a ferroelectric surface layer with reduced dielectric constant. In contrast to the Merz model (W. J. Merz, Journ. Applied Phys., 27 (1956) 938) which considered a homogeneous layer, authors assume that the dielectric constant within the layer gradually decreases as it approaches the surface. W. Mertz (Journ.

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ACCESSION NR: AP4035378

Applied Phys. 27 (1956) 938) and C. F. Pulvari, (Journ. Am. Ceramic Soc., 42 (1959) 355) found that the electric field strength E_c on c-domain barium titanate crystals is higher in crystals with a smaller natural thickness d (not effected by etching) than for thicker crystals. This finding was approximated by the hyperbolic function

$$E_c = E_\infty + \frac{\gamma}{d} \qquad (1)$$

The model for a crystal with a homogeneous surface layer d_L with dielectric constant ε_L leads to the relationship

$$E_c = E_B\left(1 + 2\frac{\varepsilon_B d_L}{\varepsilon_L d}\right) \qquad (2)$$

where d is the natural crystal thickness; ε_B is the dielectric constant of the crystal interior; and E_B is some critical value of the electric field within the crystal at which switching occurs. Author used the experimental values of

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ACCESSION NR: AP4035378

E_c = 950 volts/cm for a crystal without a surface layer and E_c = 700 volts/cm for an unetched crystal. The value $d_L = 10^{-3}$ cm was taken from Glogar and Janovec's work (Czech. J. Phys., B13 (1963) 261). These values were used to obtain the constant Υ, characterizing the coercive force of unetched crystals. It was found that Υ = 1.6 V, which is in satisfactory agreement with Merz's and Glogar and Janovec's data. "The authors thank V. Dvorak C. Sc., J. Fousek C. Sc. and Z. Malek C. Sc. for stimulating discussions." Orig. art. has: 9 equations.

ASSOCIATION: Institute of Physics, Czech. Academy of Sciences, Prague

SUBMITTED: 06May63 DATE ACQ: 26May64 ENCL: 00

SUB CODE: EM, SS NO REF SOV: 009 OTHER: 000

Card 3/3

FOUSEK, Ya. [Fousek, J.]; BRZHEZINA, B. [Brezina, B.]

Frequency dependence of the motion of 90° domain walls in barium titanate. Izv. AN SSSR. Ser. fiz. 28 no. 4:717-721 Ap '64. (MIRA 17:5)

1. Fizicheskiy institut Chekhoslovatskoy Akademii nauk.

BR

ACCESSION NR: AP4035377 Z/0055/64/014/001/0021/0025

AUTHOR: Brezina, B.; Fotcenkov, A. A.

TITLE: The influence of a surface layer upon the 180 degree switching of BaTiO sub 3 single crystals

SOURCE: Chekhoslovatskiy fizicheskiy zhurnal, v. 14, no. 1, 1964, 21-25, 76a-b

TOPIC TAGS: switching, clamping, d-c restoration, switching diode, crystallography, BaTiO sub 3 crystal, anti-parallel domain, solid state physics, BaTiO sub 3-KF system, LiCl electrode

ABSTRACT: The effect of a $BaTiO_3$ single crystal surface layer on 180° switching was found. $BaTiO_3$ single crystals without admixtures, which were grown from a $BaTiO_3$-KF system, were used. Crystals with a perfect surface and without internal stress were c-domained by a d-c electric field for a maximum of 1 sec. The crystals were examined by the microscopic method described by R. C. Millers and A. Savage (Journal of Applied Physics, 31 (1960), 662). A continually increasing voltage of a constant rate of 10 volts/min was applied to liquid LiCl electrodes in the direction of the crystal's c-axis. After the application

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ACCESSION NR: AP4035377

of the electric field, the nucleating and moving anti-parallel domain walls are visible when crossed Nicol prisms are used. The surface layer was successively etched from one or both sides simultaneously in concentrated H_3PO_4 at 140-150 C. The surface layer on $BaTiO_3$ crystals causes the formation of a large number of anti-parallel domains during switching by a d-c electric field. These domains extend sideways only insignificantly. Conversely, the switching in crystals without a surface layer is characterized by the formation of a small number of anti-parallel domains in which the sideways motion of the wall predominate. A long-term polarization (about 10 hours) with a d-c field of 10 to 15 kilovolts/cm has an effect which is similar to etching a surface layer on both sides. The maximum displacement rate of the 180° wall in etched crystals was in the direction of the crystallographic a axis. The minimum was in the direction forming a 45° angle with the a axis. Hence, primarily square domains with inwardly bending sides are produced from the original point domains. Authors conclude that they cannot at present make any further conclusive statements concerning the fact that the number of the nuclei of anti-parallel domains can be influenced by prolonged polarization of $BaTiO_3$ single

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ACCESSION NR: AP4035377

crystals by a d-c field. The relatively long periods of d-c field application which are necessary for the change described indicate the presence of ion exchange processes in the electric field which obviously effect the surface layer. "The authors thank J. Fousek C. Sc. and K. Patek C. Sc. for valuable discussions and H. T. Arend C. Sc. and J. Jary for preparing the crystals." Orig. art. has: no graphics.

ASSOCIATION: Institute of Physics, Czech. Academy of Sciences, Prague; Institute of Physics, Academy of Sciences, SSSR, Krasnoyarsk

SUBMITTED: 02Apr63 DATE ACQ: 26May64 ENCL: 00

SUB CODE: SS, EC NO REF SOV: 000 OTHER: 011

Card 3/3

ACC NR: AP6019268 SOURCE CODE: GE/0030/66/015/002/0451/0456

AUTHOR: Brezina, B.; Safrankova, M.; Kvapil, J.

[Brezina, Safrankova] [Kvapil]

ORG: Institute of Physics, Czechoslovak Academy of Sciences, Prague; Research Institute of Single Crystals, Turnov

TITLE: Ferroelectric properties of solid solutions of triglycine sulfate and fluoberyllate crystals

SOURCE: Physica status solidi, v. 15, no. 2, 1966, 451-456

TOPIC TAGS: ferroelectric property, ferroelectric crystal, Curie point

ABSTRACT: Solid solutions of ferroelectric TGS and TGFBe single crystals were prepared by the dynamic cooling of aqueous solutions. Various physical properties of the solid solutions were measured for different relative concentrations of the single crystals. It was found that the phase transition temperature is not a linear function of the concentration while the variations of the permitivity of solutions of all concentrations with temperature obey the Curie-Weiss law. It was also found that the coercive field of TGS-TGFBe solid solutions increases with increasing TGFBe content.
The authors thank Mr. J. Novák for an appraisal of the analytical methods and Mr. K. Bernatzik for help in growing the single crystals. The authors also thank Dr. J. Fousek and Dr. Z. Hauptman for suggestions which helped to improve the manuscript,

Card 1/2

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000306920002-9"

ACC NR: AP6019268

and Dr. V. Janovec and Dr. V. Dvorák for valuable discussions. Orig. art. has: 7 figures, 3 formulas.

SUB CODE: 20/ SUBM DATE: 26Nov65/ SOV REF: 002/ OTH REF: 011

Card 2/2

BREZINA, J.

From the activity of the Shell Molding Group. Slevarenstvi 11 no.10:426 O '63.

BREZINA, J.

Activities of the Group for Shell Molding. Slevarenstvi 12 no.5:200 My '64.

CHURY, Jiri; BREZINA, Jaroslav; LUKSIK, Jiri

Effect of muscular activity and of biogenic stimulators on semen. Cesk. biol. 4 no.3:158-161 Mar 55.

1. Biologicky ustav veterinarni fakulty Vysoke skoly zemedelske, Brno.
(SEMEN, physiology,
eff. of biogenic stimulators, eff. on semen in rabbits)
(TISSUE THERAPY,
biogenic stimulators, eff. on semen in rabbits)
(EXERCISE, effects,
on semen in rabbits)

BŘEZINA, Jaroslav

Distr: 4E2c(j)/4E3d 7

Hydration of diluted acetylene in the liquid phase. Vladimír Medonos and Jaroslav Březina (Vysoká škola chem.-tech., Pardubice). *Chem. průmysl* 8, 344-9(1958); cf. *C.A.* 51, 1829f.—The liquid phase hydration of C_2H_2 to AcH was studied using C_2H_2-H mixts. of low C_2H_2 content. HgO (1%) in dil. H_2SO_4 was used as a catalyst. The following reaction parameters were varied: concn. of H_2SO_4 (5–20% of catalyst wt.), flow rate (60–100 l. gas mixt./l. catalyst soln./hr.), C_2H_2 content (5–20% of gas volume), vol. of catalyst soln. (500–800 ml.). The temp. for most runs was 90° with a few performed at 80°. Statistical evaluation of the results gave the following optimum conditions, verified by expt.: concn. of H_2SO_4 10%; vol. of catalyst soln. 700 ml.; flow rate 80 l./l./hr.; C_2H_2 content 13%; temp. 90°. The conversion yield under these conditions was 74%. This compared favorably with an optimum yield of 65% for pure C_2H_2. These findings indicate the possibility of direct conversion of low grade C_2H_2 resulting from the pyrolysis of hydrocarbons. Max Hellmann

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2 May
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BREZINA, J.

An automatic machine for the production of shell molds. p. 232.
(SLEVARENSTVI, Vol. 5, No. 8, Aug 1957, Praha, Czechoslovakia)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, No. 12, Dec 1957. Uncl.

BREZINA, J.; BUDAY, T.

Rhyolite tuffs in the upper Helvetian and Sarmatian of the lower Moravian region. p. 178.
(PRAGUE, Vol. 32, no. 3, 1957, Praha, Czechoslovakia.)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, no. 12, December 1957. Incl.

BREZINA, J.

"A quick method of modal analysis."

VESTNIK, ustredni ustav geologicky, Prague, Czechoslovakia, Vol. 33, No. 8, 1958

Monthly List of East European Accessions (EEAI), LC, Vol. 8, No. 8, August 1959. Uncl.

BREZINA, Jaroslav, inz.

Tightening gun for prestressed concrete. Tech praca 14 no.6: 457-458 Je '62.

1. Urad pro patenty a vynalezy, Praha.

CZECHOSLOVAKIA

BREZINA, J.

Central Institute of Geology (Ustredni ustav geologicky), Prague

Prague, Vestnik Ustredniho ustavu geologickeho, No 6, 1963, pp 409-412

"Classification and Measures of Grain Size Distribution."

BREZINA, J.

Activity of the Group for Shell Molding. Slevarenstvi 13 no.1: 37 Ja '65.

BREJNA, Karel; ZENISEK, L., inz.

Voltage and electromotive force; discussion. El tech obzor 53 no.8: 442-446 Ag '64.

BREZINA, M.

Evolution of thermoelectric refrigerators in the USSR.

P. 16, (Sbirka Vynaezu) Vol. 6, no. 1, Jan. 1957, Praha, Czechoslovakia

SO: Monthly Index of East European Acessions (EEAI) Vol. 6, No. 11 November 1957

BREZINA, Miroslav

Chemical Abstracts
May 25, 1954
Electrochemistry

Reaction of carbonyl compounds with amines. V. Polarographic study of the reaction of cyclanones with primary amines; equilibrium states. Miroslav Březina and Petr Zuman (Czech. akad. věd., Prague). *Chem. Listy* 47, 975–91(1953); cf. *C.A.* 47, 2039*h*.—The cation :C:-NRH$^+$ obtained by the reaction of cyclopentanone (I), cyclohexanone (II), and methylcyclohexanone (III) with NH_3 (IV), $MeNH_2$ (V), $EtNH_2$, $HOCH_2CH_2NH_2$, $NH_2CH_2CO_2H$ (VI), and $MeCH(NH_2)CO_2H$ was reducible under polarographic conditions. The equil. consts. of the reaction, and the dissocn. consts. of the final ketimines were detd. The stability of the condensate depended on the polarity of the starting :C:O group as well as on the polarity of the final :C:N— group. For analytical purposes, the reaction with $MeNH_2$ was most suitable and allowed the detn. of cyclanones in concns. up to 10^{-5}. Dissocn. consts. and half-wave potentials of cyclanonimines were listed (carbonyl compd., amine, dissocn. const., and half-wave potential in v.): I, IV, 8.95, −1.56; I, V, 8, −1.60; I, VI, 8.72, −1.53; II, IV, 9.15, −1.53; II, V, 9.43, −1.58; II, VI, 9.48, −1.48; III, IV, 9.38, −1.54; III, V, 9.47; −1.52; III, VI, 9.64, −1.50. M. Hudlický

BREZINA, Miroslav

Chemical Abstracts
May 25, 1954
Electrochemistry

④ 9

Polarography of steroids. I. Directly reducible steroids: Δ⁴-cholestenone, methyltestosterone, testosterone, progesterone, and deoxycorticosterone. Petr Zuman, Jiří Tenygl, and Miroslav Březina (Czech. akad. věd., Prague). *Chem. Listy* 47, 1153-61(1953).—Reduction waves of Δ⁴-3-ketosteroids in aq.-alc. buffered solns. were studied. The presence of two forms interconvertible with pH was ascertained by polarography. Adsorption waves were found in the alk. range of pH, and with Δ⁴-cholestenone-3 and deoxycorticosterone, also in acidic medium. With lower concns. of EtOH in the solns., catalytic waves were observed in acidic medium. The most suitable conditions for the analytical detn. of the total contents of Δ⁴-3-ketosteroids and for the detn. of mixts. of some steroids were described. The detn. of the sum of ketosteroids was best carried out in 0.1*N* LiOH at pH 5-6. Deoxycorticosterone could be detd. in the presence of testosterone at pH 9.5, in the presence of methyltestosterone at pH 9.2, and progesterone in the presence of methyltestosterone at pH 9.2.

M. Hudlický

BREZINA, M.

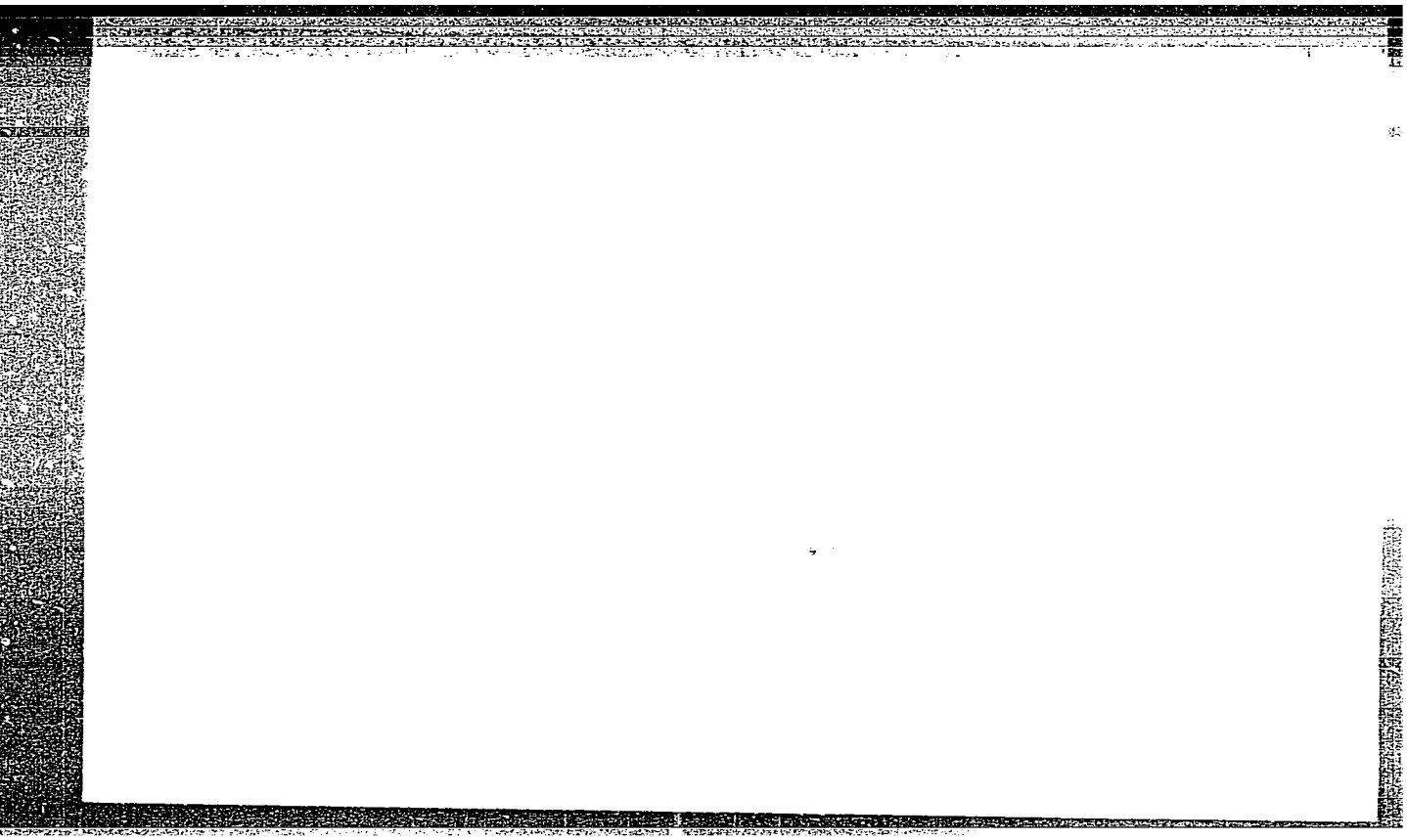
CZECH

720. Polarography of steroids. II. Reaction of ketosteroids with hydrazines and primary amines. M. Březina, V. Volková and J. Volke (*Chem. Listy*, 1953, 48, 27, 104–207).—The polarographic behaviour of the reaction products of dehydroisoandrosterone, methyltestosterone and progesterone with Girard's reagent D (*cf. Brit. Abstr. C*, 1951, 400) (I) was studied. The buffered aq. alcoholic solutions of the dimethylglycylhydrazones formed show the presence of two forms of reducible compounds, the ratio of which depends on pH. The reduction at the dropping-mercury electrode requires 4 electrons and 4 protons. The following procedure for the determination of 17-ketosteroids is recommended. Evaporate the sample containing ≃ 1 mg of the steroid in ethanol or other low-boiling solvent to dryness, treat the residue with a 10 per cent. soln. of I in glacial acetic acid (at least 0·1 ml per 1 mg of ketosteroid), heat for 3 min. on a steam-bath, cool, and add ethanol and, in order to adjust pH to 4·7, 0·25 *N* NaOH (3·2 ml per 0·1 ml of soln. I). Dilute with water to 5 ml and polarograph at − 1·2 to − 1·3 V *vs.* the S.C.E. To determine 17-ketosteroids in urine, heat the urine (10 ml) with conc. HCl (3 ml) at 80° C during 10 min., isolate the hydrolysis products by extracting with freshly distilled ether (2 × 20 ml), wash the extract with 2 *N* NaOH (40 ml) and water (2 × 40 ml), evaporate to dryness and proceed as above. (G. GLASER.)

BREZINA, M.

Determination of oxygen. In German. p. 407. (Acta Chimica, Vol. 9, No. 1/4, 1956, Budapest, Hungary)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, No. 8, Aug 1957. Uncl.



APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000306920002-9"

BRDIČKA, R.

"Catalytic electrode reactions in polarography. VI. Catalysis of the hydrogen peroxide reduction by means of iron ions in an alkaline medium." In German.

P. 339. Collection of Czechoslovak Chemical Communications. Sbornik Chekhoslovatskikh Khimicheskikh Rabot. (Praha, Czechoslovaka.) Vol. 22, no. 2, Apr. 1957.

SO: Monthly Index of East European Accession (EEAI) LC, Vol. 7, No. 5, May 1958

BREZINA, M.

Catalysis of polarographic reduction of cystin by some metallic ions. In German. Coll.Cz.Chem. 24 no.11:3509-3522 N '59.
(KRAI 9:5)

1. Polarogarphisches Institut, Tschechoslowakische Akademie der Wissenschaften, Prag.
(Catalysis) (Polarograph and polarography) (Cystine) (Ions) (Zinc) (Manganese) (Nickel) (Iron) (Cobalt)

BREZINA, Mir.; KRCIL, Ant.

Effect of external factors on the oxygen saturation of venous blood measured by a polarographic method. Cas. lek. cesk. 98 no.9:276-279 27 Feb 59.

1. Polarograficky ustav Csav, prednosta akademik J. Heyrovsky. IV. interni klinika KU, prednosta prof. dr. Boh. Prusik. M. B., Praha XIX, Na Cvicisti 2.

(OXYGEN, in blood
saturation of venous blood, eff. of external factors, polarography (Cz))

Brezina, Miroslav

[redacted], Oliver Marou

Country: Czechoslovakia

Academic Degrees:

Affiliation:

Source: Prague, Veterinarni Medicina, No 12, December 60, p 875

Data:

[redacted], Hvezda
Academic Degrees: Graduate in Veterinary Medicine
Affiliation: Department of Medical Chemistry, Physics, and Toxicology, Veterinary Faculty of VSZ in Brno; Polarographic Institute of the Czechoslovak Academy of Sciences in Prague.
Data: Co-author of "Polarographic Determination of Nitrofurazone in Food Mixtures for Chickens," Source.

Brezina, Miroslav
Academic Degrees: RNDr
Affiliation: Department of Medical Chemistry, Physics, and Toxicology, Veterinary Faculty of VSZ in Brno. Also, Polarographic Institute of the Czechoslovak Academy of Sciences in Prague.
Data: Co-author of "Polarographic Determination of Nitrofurazone in Food Mixtures for Chickens," Source.

[redacted], Vaclach
Academic Degrees: Docent; Doctor of Veterinary Medicine
Affiliation: Department of Medical Chemistry, Physics, and Toxicology, Veterinary Faculty at VSZ in Brno; Polarographic Institute of the Czechoslovak Academy of Sciences in Prague.
Data: Co-author of "Polarographic Determination of Nitrofurazone in Food Mixtures for Chickens," Source.

BN

BREZINA, M.

"Introduction to practical polarography" by J. Heyrovsky and P. Zuman. Reviewed by M. Brezina. Coll Cz Chem 26 no.7: Jl '61.

(Heyrovsky, J.) (Zuman, P.)
(Polarograph and polarography)

SAFRANKOVA, B.; BREZINA, M.

Peptide-like compounds in the urine of patients suffering from burns. Acta chir. plast. 4 no.1:18-25 '62.

1. Laboratory for Plastic Surgery (Director: Academician F. Burian) and Polarographic Institute (Director: Academician J. Heyrovsky), Czechoslovak Academy of Science, Prague (Czechoslovakia)

(BURNS urine) (PEPTIDES urine)

BREZINA, M.

"Concise textbook of biochemistry for physicians and naturalists" by P. Karlson. Reviewed by M. Brezina. Coll Cz Chem 27 no.8:2022-2023 Ag '62.

CSSR

CHMELAR, V.; BREZINA, M.; KALOUS, V.

no academic degrees indicated

Institute for Medical Chemistry, Charles University, Hradec Kralove; Polarographic Institute, Czechoslovak Academy of Sciences, Prague, and Institute for Physical Chemistry, Charles University, Prague (for all)

Prague, Collection of Czechoslovak Chemical Communications, No 1, 1963 pp 197-209

"Radiopolarography of an Experimental Cobalt (II) Solution in the Presence of Cystin or Proteins"

(3)

ALEXANDROV, B.; BREZINA, M.; KALOUS V. CSSR

no academic degrees indicated

Institute for Physical Chemistry, Charles University, and Polarographic Institute, Czechoslovak Academy of Science, Prague (for all)

Prague, Collection of Czechoslovak Chemical Communications, No 1, 1963 pp 210-220

"Polarographic Catalytic Grade of Serum Albumen in Cobalt (II)- and Cobalt(III) Solutions"

(3)

BREZINA, M.; GULTJAJ, V.

Effect of the groups SH, NH_2 and COOH on the formation of polarographic catalytic Brdicka waves in ammoniacal cobalt- and nickel solutions. Coll Cz Chem 28 no.1:181-196 Ja '63.

1. Polarographisches Institut, Tschechoslowakische Akademie der Wissenschaften, Prag.

CHMELAR, V.; BREZINA, M.; KALOUS, V.

Radiopolarography of the cobalt (II) test solution in the presence of cystine or albumins. Coll Cz Chem 28 no.1:197-209 Ja '63.

1. Institut fur medizinische Chemie, Karlsuniversitat, Hradec Kralove, Polarographisches Institut, Tschechoslowakische Akademie der Wissenschaften, Prag, und Institut fur physikalische Chemie, Karlsuniversitat, Prag.

ALEXANDROV, B.; BREZINA, M.; KALOUS, V.

Polarographic catalytic waves of serum albumins in cobalt (II) and cobalt (III) solutions. Coll Cz Chem 28 no.1:210-220 Ja '63.

1. Institut fur physikalische Chemie, Karluniversitat und Polarographisches Institut, Tschechoslowakische Akademie der Wissenschaften, Prag.

BREZINA, M.

"Modern chemical methods in a clinic" by M. Buchner and others. Reviewed by M. Brezina. Chem listy 57 no.3:285 Mr '63.

BREZINA, M.

"Short textbook of biochemistry for physicians and natural scientists" by P. Karlson. Reviewed by M. Brezina. Chem listy 57 no.4:412 Ap '63.

JJ

BREZINA, M.; KRCILEK, A.; JELINKOVA, M.

Polarographic determination of proteins in the urine. Cas.lek. cesk. 103 no.5:129-131 31 Ja'64

1. Polarograficky ustav CSAV v Praze (reditel: akademik J.Heyrovsky); IV. interni klinika fakulty vseobecneho lekarstvi KU v Praze (prednosta: prof.dr. M.Fucik); Ustredni biochemicke laboratore fakulty vseobecneho lekarstvi KU v Praze (vedouci: MUDr. J.Hrabene.)

*

CZECHOSLOVAKIA

BREZINA, M.; KUTOVA, M.

1. J. Heyrovsky Polarographic Institute, Czechoslovak Academy of Sciences (Polarographisches Institut J. Heyrovsky, Tschechoslowakische Akademie der Wissenschaften) (for Brezina,); 2. Institute for Flow Research (Institut für Rheumaforschung), Prague (for Kutova?)

Prague, Collection of Czechoslovak Chemical Communications, No 12, Dec 1965, pp 4307-4315

"Effect of electrolyte flow on the polarographic catalytic hydrogen flow."

CZECHOSLOVAKIA

KUTOVA, M.; BREZINA, M.

1. Institute for Flow Research (Institut für Strömungsforschung) (for Kutova?); 2. J. Heyrovsky Institute for Polarography (Polarographisches Institut J. Heyrovsky), Czechoslovak Academy of Sciences (for Brezina?)

Prague, Collection of Czechoslovak Chemical Communications, No 2, Feb 1966, pp 743-750

"Study of the characteristics of the polarographic protein double wave and the dependence of the drop electrode constant and the course of the instantaneous stream."

ACC NR: AP6009989 SOURCE CODE: CZ/0008/65/000/003/0349/0349

REVIEWER: Brezina, M.

ORG: none

TITLE: Polarography of proteins and its clinical application

SOURCE: Chemicke listy, no. 3, 1965, 349

TOPIC TAGS: protein, biochemistry, cystine polarographic analysis

ABSTRACT: The article is a review of a book written by J. HOMOLKA, under the mentioned title, and published by the Publishing House "Statni Zdravotnicke Nakladatelstvi" (State Medical Publications) at Prague. The book has 148 pages, and sells for Kcs 13.50. It discusses the principles of polarography, polarographical behavior of proteins, clinical uses of the polarographic behavior of proteins, and the operating methods for individual polarographical analyses. The discussion of the behavior of cystine is critical of the book. Its best part are the description of operating methods in clinical uses of polarographical analyses of protein. [JPRS]

SUB CODE: 06, 07 / SUBM DATE: none

Card 1/1

BREZINA, O.

CH

Preparation of ester from finely dispersed sodium cyanoacetate. O. Brezina, J. Černý, I. Odler, and J. Tamchyna

(Slov. vysoká škola tech., Bratislava, Czech.). *Chem. Zvesti* 8, 76–9(1954).—The effect of H_2O, dispersion, and time in prepn. of $NCCH_2CO_2Me$ from finely dispersed technikally pure $NCCH_2CO_2Na$ by evapg. soln. after cyaniding CH_2ClCO_2Na in water-free medium of C_4H_9-MeOH at 20° after adding H_2SO_4 was studied. It was found that the reaction speed is not affected by finely dispersed salt. Maximum yield was obtained in 50 hrs. and the presence of H_2O up to 1% in the reaction medium increased the yield 4%. Dispersion had little effect on esterification yield. Jan Micka

(3)

BREZINA, OTAKAR

Czechoslovakia / Chemical Technology. Chemical Products and Their Application I-14

Water treatment. Sewage water.

Abs Jour: Referat Zhur - Khimiya, No 9, 1957, 31702

Author : Vlcek Radoslav, Sistek Frantisek, Brezina Otakar

Title : Field Laboratory for the Testing of Water

Orig Pub: Vojenske zdravortn. listy, 1956, 25, No 11, 515-517

Abstract: No abstract.

Card 1/1

BREZINA, O.

Changes in the level of protein fractions in vaccinated and tuberculosis-infected guinea pigs. Bratisl. Lek. Listy 44 no.8:499-506 '64.

1. Ustav tuberkulozy v Bratislave (riaditel MUDr. J. Markovic).

BREZINA, P.

Natural habitat of the pine (Pinus mugo, subspecies subspecies uncinata, variatio fotundata, f. pyramidata Hartig.) on the moors of the Trebon area. p. 44.
OCHRANA PRIRODY. (MINISTERSTVO KULTURY, Statni pece o ochranu prirody) Praha.
VOL. 11. no. 2, Mar. 1956.

SOURCES: EEAL LC Vol. 5, No. 10, Oct. 1956

BREZINA, Premysl, inz.

Forest plant communities of the Trebon Moors and the losses caused by peat extraction. Les cas 10 no. 4:401-420 Ap '64.

1. Institute of Forest Economic Development, Worksite Trebon.

BREZINA, R.; URVOLGYI, J.

Study of the antigenic structure of Coxiella burneti. I. Extraction of phase I antigenic component by means of trichloracetic acid. Acta virol. (Praha)[Eng]6 no.1:84-88 Ja '62.

1. Institute of Virology, Czechoslovak Academy of Sciences, Bratislava.

(COXIELLA immunol) (ANTIGENS)
(TRICHLOROACETIC ACID)

BREZINA, R.; SCHRAMEK, S.; URVOLGYI, J.

Study of the antigenic structure of Coxiella burneti. II. Purification of phase I antigenic component obtained by means of trichloroacetic acid. Acta virol. 6 no.3:278-279 '62.

1. Institute of Virology. Czechoslovak Academy of Sciences, Bratislava.
(COXIELLA immunol) (ANTIGENS)
(TRICHLORACETIC ACID)

BARDOS, V.; BREZINA, R.; HYMPAN, J.; KMETY, E.; KRATOCHVIL, J.; LIBIKOVA, H.; MICICKA, O.; MILOSOVICOVA, A.; ROSICKY, B.; SOMODSKA, V.

A complex survey of infection foci in Eastern Slovakia in 1953. Bratisl. lek. listy 34 no.10-11:1166-1195 Oct-Nov 54.

1. Zo Zoologickeho ustavu Vysokej skoly polnohosp. v Brne, prednosta prof. dr. J.Kratochvil, z Virologickego ustavu CSAV v Bratislave, riaditel' akademik D.Blaskovic, z Biologickeho ustavu CSAV v Prahe, riaditel akademik I.Malek, z Oblastneho ustavu epidemiologie a mikrobiologie v Bratislave, riaditel dr. J.Karolcek, z Neurologickej kliniky PLFSU v Kosiciach, prednosta doc. dr. J.Hympan, z KHESu v Kosiciach, riaditel dr. J.Kratochvil, z Hygienickeho ustavu LFSU v Bratislave, prednosta akademic V.Mucha

(ENCEPHALITIS, EPIDEMIC, epidemiology in Czech., foci survey in E.Slovakia)
(LEPTOSPIROSIS, epidemiology in Czech., foci survey in E.Slovakia)

BREZINA, R.

BARDOS, V.; BALAT, F.; BREZINA, R.; KMETY, E.; KRALIKOVA, D.; LIBIKOVA, H.; MACICKA, O.; MANICOVA, E.; NOSEK, J.; ROSICKY, B.; SIMKOVA, A.; SOMODSKA, V.; ZACHAR, D.

Survey of the natural foci of infections in one district of Slovakia. Bratisl. lek. listy 34 no.10-11:1195-1237 Oct-Nov 54.

1. Z Virologickeho ustavu CSAV, riaditel akademik D.Blaskovic. Z Ustavu epidemiologie a mikrobiologie v Bratislave, riaditel dr. J.Karolcek. Z Neurologickeho oddeleni nemocnice v N., primar dr. D.Zachar. Z Infekcneho oddelenia nemocnice v N., primar dr. E.Manicova. Z Biologickeho ustavu CSAV v Prahe, riaditel akademik I.Malek. Z Laboratoria pre stavovce CSAV v Brne, veduci prof. J.Kratochvil. Z Hygienickeho ustavu LSFU v Bratislave, prednosta akademik V.Mucha.

(ENCEPHALITIS, EPIDEMIC, epidemiology in Czech. natural foci in Slovakia)
(LEPTOSPIROSIS, epidemiology in Czech., natural foci in Slovakia)
(RICKETTSIAL DISEASES, epidemiology in Czech., natural foci in Slovakia)

BREZINA, R.

KOLAROVA, Frida, Dr.; DROPPA, Jan, Dr.; BREZINA, Rudolf, Dr.

A case of herpangina with positive virus isolation. Ces. lek. cesk. 93 no.51-52:1407-1411 24 Dec 54.

1. Z kliniky otolaryngologickej SU v Bratislave, prednosta doc. Dr.Jan Lajda (for Kolarova, Droppa) 2. Z virologickeho Ustavu AV v Bratislave, prednosta akademik prof. Dr. Dyonyz Blaskovic (for Brezina)

(HERPANGINA, virus
isolation of Coxsackie virus)
(COXSACKIE VIRUSES, infections
herpangina, isolation)

BREZINA, R.

Our experience from the work with Coxsackie virus (viruses of group C). Bratisl. lek. listy 34 no.10-11:1270-1274 Oct-Nov 55.

1. Z Virologickeho ustavu CSAV v Bratislave, riaditel akademic D.Blaskovic

(COXSACKIE VIRUSES
isolation in Czech.)

BREZINA, R.

EXCERPTA MEDICA Sec.4 Vol.10/4 Microbiology Apr 57

850. BREZINA R. and TÁBORSKÁ D. Virol. Ústav ČSAV, Bratislava. *Výskum Q horúčky na slovensku. II. zdelenie: Sporadické prípady choroby a d'alší výskum rezervoárových zvierat. Research of Q-fever in Slovakia. II. Sporadic cases and further investigation of reservoir animals ČSL. EPIDEM. MIKROBIOL. IMUNOL. 1956, 5/3 (152-155) Tables 2

A description of 41 sporadic cases of Q-fever which occurred in the period May 1954-October 1955 in Slovakia is given. Professional character of the disease was observed with these patients. Some epidemiologic and clinical observations are mentioned (2 cases with exanthema). Animals which could possibly be a reservoir of the infection have been serologically examined - the results of serologic reactions are given. Apart from the animals found to be reservoir species in 1954 (deer, doe, mus domestica and shrew-mouse), specific complement-fixing antibodies have been found in the sera of 14 brown rats, 3 foxes and 2 hares. The importance of these findings is discussed.

2147. BREZINA R. Virol. Úst. ČSAV, Bratislava. *Príspevok k štúdiu rozpustného antigénu C. burneti. Zdelenie I: Rozpustný antigén v sérologických reakciách a v imunite proti Q horúčke. Study of the soluble antigen of C. burneti. I. The soluble antigen in serological reactions and immunity against Q fever ČSL. EPIDEM. MIKROBIOL. IMUN. 1956, 5/5 (239-245) Graphs 1 Tables 5

The soluble antigen gained by ether extraction of infected yolk-sacs was concentrated by low-grade evaporation, 40% ammonium sulphate and 25% alcohol. In the latter the most satisfactory results in the complement-fixation reaction were achieved in a 20-fold concentration. The immunogenic effect tested in guinea-pigs and evaluated according to the number of febrile days after the administration of living coxiellas in comparison to controls directly depends on the amount of the administered antigen. Soluble antigens of different strains were the same in their immunogenic effect. Complement-fixation and agglutination antibodies were demonstrated as the result of immunization with soluble antigens. The allergic reactions with the soluble antigens in skin tests are weaker in comparison with the corpuscular antigen but without difference in its dynamics. The presence of soluble antigen in the blood of guinea-pigs during the febrile state could not be proved. Strauss - Prage (IV, 17)

BREZINA, R.; TABORSKA, D.

Antigenic properties of C. burnetti isolated in Slovakia.
Cesk. epidem. microb. imun. 6 no.1:34-42 Jan 57.

1. Virologicky ustav CSAV v Bratislave, riaditel akademik D. Blaskovic. MUDr. R. Brezina, Virologicky ustav CSAV, Bratislava, Mlynska dolina.
(COXIELLA BURNETTI, immunology,
antigenic properties of strains isolated in Czech. (Cz))

CZECHOSLOVAKIA/Virology - Rickettsias. E-5

Abs Jour : Ref Zhur - Biol., No 15, 67014

Author : Brezina, R., Kordova, N.
Inst :
Title : The Action of Auromycin and Terramycin upon Experimental Mice Infection.

Orig Pub : Veterin. casop., 1957, 6, No 3, 184-191

Abstract : Mice were infected with the strain L-35 C. burneti which caused chronic infection. The administration of auromycin and terramycin at the start of the infection period lowered the curve of formation of complement fixation of antibodies. In the reinfection of mice, which had or had not received auromycin, no differences in sensitivity were found.

Card 1/1

18

BREZINA, R.

Contribution to the study of phase variation in Coxiella burneti. Acta virol. Engl. Ed. Praha 2 no.2:91-102 Apr-June 58.

1. Institute of Virology, Czechoslovak Academy of Sciences, Bratislava.
(COXIELLA BURNETII, immunology
phase variation phenomenon)

BREZINA, R.

A change in the virulence of the Henzerling strain of ~~Xoliella~~ Coxiella burneti during passage in white mice. Acta virol. Engl. Ed., Praha 2 no.4:220-227 Oct-Dec 58.

1. Institute of Virology, Czechoslovak Academy of Sciences, Bratislava.
(COXIELLA BURNETTI, infect.
changes in virulence of Henzerling strain for guinea pigs after passage in white mice)

BREZINA, R.; URVOLGYI, J.; ROSICKY, B.; CILKA, S.; DUSHNIKU, N.; NARACIK, K.; DISHNICA, G.

Rickettsioses and infections caused by viruses of the psittacosis-ornithosis-mammalian pneumonia group, in Albania. J. hyg. epidem., Praha 5 no.1:85-88 '61.

1. Institute of Virology, Czechoslovak Academy of Sciences, Bratislava. Institute of Biology, Czechoslovak Academy of Sciences, Praha, Ministry of Health of Albania.

(MIYAGAWANELLA infect)

BREZINA, R.; URVOLGYI, J.

Phase variation phenomenon of Coxiella burneti in the agglutination reaction. Acta virol.Engl.Ed.Praha 5 no.3:160-166 My '61.

1. Institute of Virology, Czechoslovak Academy of Sciences, Bratislava.

(COXIELLA immunol)

BREZINA, R.; URVOLGYI, J.

Extraction of Coxiella burneti phase I antigen by means of trichloroacetic acid. Acta virol. Engl. Ed. Praha 5 no. 3:193 My '61.

1. Institute of Virology, Czechoslovak Academy of Sciences, Bratislava.

(COXIELLA immunol) (TRICHLOROACETIC ACID)

BREZINA, R.; REHACEK, J.

A study of the phase variation phenomenon by experimental infection of the tick Dermacentor marginatus sulzer with Coxiella burneti. Acta virol. Engl. Ed. Praha 5 no.4:250-254 Jl '61.

1. Institute of Virology, Czechoslovak Academy of Sciences, Bratislava.

(COXIELLA infection) (TICKS)

BREZINA, R.; URVOLGYI, J.

Serological relationships between some viruses of the Bedsonia group and Rickettsiae. Acta virol.Engl.Ed.Praha 5 no.4:255-257 Jl '61.

1. Institute of Virology, Czechoslovak Academy of Sciences, Bratislava.

(VIRUSES) (MIYAGAWANELLA) (RICKETTSIA)

BREZINA, R.; KORDOVA, N.; LINK, F.

The effect of 6-azauracil riboside on the multiplication of Coxiella burneti, Rickettsia prowazeki and R. mooseri. Acta virol. 6 no.3: 266-270 '62.

1. Institute of Virology, Czechoslovak Academy of Sciences, Bratislava.
(NUCLEOSIDES AND NUCLEOTIDES pharmacol)
(RICKETTSIA pharmacol)
(COXIELLA pharmacol)
(RICKETTSIA PROWAZEKII pharmacol)

BORECKY, L.; BREZINA, R.

Problem of the pathogenesis and resistance in case of virus and rickettsia infection on the cell level. Vestnik CSAV 70 no.1:70 '61.

1. Virologicky ustav, Ceskoslovenska akademie ved, Bratislava.

BREZINA, R.; REHACEK, J.; KORDOVA, N.

Virulence of Coxiella burneti. Acta virol. 7 no.3:260-268 My '63.

1. Institute of Virology, Czechoslovak Academy of Sciences, Bratislava.
(HAMSTERS) (COXIELLA) (Q FEVER)

BREZINA, R.; KAZAR, J.

Phagocytosis of Coxiella burneti and the phase variation phenomenon. Acta virol. (Praha)[Eng] 7 no.5:476 S '63.

1. Institute of Virology, Czechoslovak Academy of Sciences, Bratislava.

(COXIELLA) (PHAGOCYTOSIS) (IMMUNE SERUMS)

BREZINA, R.; KORDOVA, N.; ROSENBERG, M.

Multiplication of Coxiella burneti in the light of recent advances. Bratisl. lek. listy 43 no.2:96-101 '63.

1. Virologicky ustav CSAV v Bratislave, riaditel' akademik D. Blaskovic.
(COXIELLA) (CELL DIVISION)
(TISSUE CULTURE) (VIRUS CULTIVATION)

REHACEK, J.; BRZIN, B.

Propagation of Coxiella burneti in tick tissue cultures. Acta virol. (Praha) [Eng.] 8 no.4:380 Jl '64.

1. Institute of Virology, Czechoslovak Academy of Sciences, Bratislava.

[redacted], J.; [redacted], K.

Demonstration of Coxiella burnetii in mice and guinea pigs by the fluorescent antibody technic. Cesk. epidem. 13 no.[illegible]:351-357 N '64.

1. Virologicky ustav Ceskoslovenskej akademie ved, Bratislava.

BREZINA,R.; SCHRAMEK,S.; URVOLGYI, J.

Study of the antigenic structure of Coxiella burneti. III. Pyrogenic effect of phase I antigen in experimental guinea pigs. Acta virol. (Praha) [Eng.] 9 no.2:180-185 Mr '65.

1. Institute of Virology, Czechoslovak Academy of Sciences, Bratislava.

BREZINA, R.; KAZAR, J.

Study of the antigenic structure of Coxiella burneti. IV. Phagocytosis and opsonization in relation to the phases of C. burneti. Acta virol. (Praha) [Eng] 9 no.3:268-274 My'65.

1. Institute of Virology, Czechoslovak Academy of Sciences, Bratislava.

BREZINA, V.

"Morophologic composition of catalysts for ammonia synthesis in an unreduced state."

CHEMICKY PRUMYSL, Praha, Czechoslovakia, Vol. 9, No. 4, April 1959.

Monthly List of East European Accessions (EEAI), LC, Vol. 8, No. 9, September 1959.

Unclassified.

S/081/63/000/002/036/088
B150/B186

AUTHORS: Valcha, Jiří, Březina, Vítězslav

TITLE: Reducing the silicon dioxide content in iron oxides

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 2, 1963, 356, abstract 2L125 (Czechoslovak patent 99969, June 15, 1961)

TEXT: Fe oxides with a reduced SiO_2 content (raw material for catalysts used in NH_3 synthesis or Fischer-Tropsch synthesis, or for electrode-catalysts) are obtained by fusing crude Fe oxides with 0.1-10 times their amount of K_2O, KOH or K_2CO_3 and Mg, Ca, Al or Ti oxide, hydroxide, carbonate or nitrate. After cooling, the melt is comminuted to a grain size of 90 μ or to the size of the primary grains of Fe_2O_3 in the cold melt; then it is treated with HCl (acid) or HNO_3. Example: 1900 g of magnetite waste, from a pneumatic magnetic separator, containing 4.37 weight % SiO_2 is fused in a resistance arc furnace with 140 g of anhydrous K_2CO_3; the

Card 1/2

Reducing the silicon dioxide ... S/081/63/000/002/036/088
B158/B186

cooled melt is comminuted to a grain size of 90 μ and treated for 60 sec. with 16.3% boiling HNO_3 at a HNO_3 : melt ratio of 5:3 (v/w). The residual magnetite is drawn off and washed with cold water. After drying in a vacuum, a product containing 0.78 weight % SiO_2 is obtained. 7.4 weight % of Fe (calculated on its initial quantity) is transferred to the solution. If 18.5% HCl (acid) is used instead of HNO_3, ≤0.59% SiO_2 will remain in the dry product. [Abstracter's note: Complete translation.]

Card 2/2

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